ABSTRACT

Progressive I-slice refreshed MPEG data streams are transcoded to I-frame based MPEG data streams to enable trick play modes on a television appliance, such as pause, scan forward, scan backward, jump, or still frame displays for use, e.g., in film indexing (chapters). A progressive I-slice refreshed MPEG data stream 10 having I-slices distributed over multiple P-frames is received by a television appliance 300. The P-frames are decoded at decoder 220 to recover the I-slices which make up a complete I-frame. The recovered I-slices are assembled (e.g., by processor 230) into a complete I-frame. The complete I-frame is encoded at an encoder 250. A selected P-frame in the MPEG data stream is replaced with the encoded I-frame (e.g., via multiplexer 255) to provide an encoded I-frame based data stream 200. The I-frame based data stream is stored (e.g., in memory 240) for trick play mode use.

April 11, 2001